

IN THE CLAIMS:

1 1. (currently amended) A tool holder apparatus comprising:
2 an elongated spindle adapted to be rotated about a turning
3 axis, and having an internally tapered opening at one end thereof connected to
4 an internally threaded bore formed along said turning axis;
5 an elongated tool holder having a first end for supporting a
6 cutting tool in a cutting position, and an externally tapered shank complementary
7 to and receivable in the tapered opening of the spindle;
8 the tool holder having a threaded bore with a threaded
9 section opening to the end opposite the cutting position of a tool;
10 the tool holder having a radially expandable collar adjacent
11 said shank and joined to said shank;
12 the threaded bore of the tool holder and the internally
13 threaded bore of the spindle having opposite hand threads;
14 a screw having a first externally threaded section threadably
15 receivable in the internally threaded bore of the spindle, and a second externally
16 threaded section threadably receivable in the threaded bore of the tool holder,
17 such that as the screw is turned in a first direction about said turning axis, the
18 tool holder is moved toward the spindle and as the screw is turned in the
19 opposite direction, the tool holder is moved away from the spindle
20 camming structure on the screw engageable with the radially

21 expandable collar of the tool holder to expand the radially expandable collar
22 thereof to engage and wedge the tool holder radially expandable collar in the
23 spindle opening for a cutting motion.

1 2. (original) A tool holder apparatus as defined in claim 1, including
2 means for preventing relative rotation between the tool holder and the spindle
3 when the tapered shank is inserted into the tapered opening of the spindle.

1 3. (original) A tool holder apparatus as defined in claim 1, in which
2 the tool holder has an annular seat around the turning axis, and the screw moves
3 the tool holder along said turning axis so that said annular seat on the tool holder
4 has pressure engagement with an end face of the tool holder.

1 4. (original) A tool holder as defined in claim 2, wherein the rotation-
2 preventing means comprises a pin-receiving opening in the spindle, facing a pin-
3 receiving opening in the tool holder, and including a pin disposed in both of said
4 pin-receiving openings to prevent the tool holder from turning about said turning
5 axis with respect to the spindle.

1 5. (currently amended) A tool holder as defined in claim 4, in which
2 the pin-receiving opening in the tool holder is disposed in a radial direction and
3 intersects an annular seat of the tool holder, and the pin-receiving opening in the
4 spindle is disposed in a radial direction and intersects an end face of the spindle.

1 6. (original) A tool holder apparatus as defined in claim 1, in which
2 the camming structure comprises an annular camming collar located on the
3 screw between the first threaded section and the second threaded section.

1 7. (original) A tool holder apparatus as defined in claim 1, in which
2 the tool holder carries an integrally mounted tool for a cutting motion.

1 8. (original) A tool holder apparatus as defined in claim 1, in which
2 the screw has an end with a wrench-receiving opening, and the spindle bore
3 provides access through the spindle for a wrench to engage and turn the screw
4 along said turning axis.

1 9. (currently amended) A tool holder apparatus comprising:
2 an elongated spindle adapted to be rotated about a turning
3 axis, and having an internally tapered opening at one end thereof connected to a
4 bore extending from said tapered opening to the opposite end of the spindle
5 along said turning axis, at least a portion of said bore being internally threaded;
6 an elongated tool holder having a first end for supporting a
7 cutting tool in a cutting position, and an externally tapered shank at an
8 intermediate portion thereof, complementary to and receivable in the tapered
9 opening of the spindle;

10 the tool holder having a threaded bore with a threaded
11 section and opening in the end opposite said first end;
12 the tool holder having a radially expandable collar adjacent
13 said shank;
14 a screw having a first end rotatably connected to the spindle,
15 and a second end threadably receivable in the tool holder bore; and
16 camming structure on the screw engageable with the radially
17 expandable collar of the tool holder to expand the radially expandable collar
18 thereof to engage and wedge the tool holder shank in the spindle for a cutting
19 motion.

1 10. (new) A tool holder apparatus as defined in claim 9, in which the
2 radially expandable collar of the tool holder comprises;
3 the tool holder having a pair of axially running slots, and a
4 transverse opening, the slots each having a first end opening to said transverse
5 opening and a second end opening to the end of the tool holder opposite said
6 first end, the transverse opening having a diameter greater than the width of the
7 slots.

1 11. (new) A tool holder apparatus as defined in claim 10 in which the
2 camming structure on the screw has a diameter greater than the width of the
3 slots such that axial motion of the camming structure expands the diameter of the
4 radially expandable collar.